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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,881	04/11/2005	Jens Spille	PD020100	9230
24498	7590	05/13/2008	EXAMINER	
Joseph J. Laks			LEE, PING	
Thomson Licensing LLC			ART UNIT	
2 Independence Way, Patent Operations			PAPER NUMBER	
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PRINCETON, NJ 08543			MAIL DATE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/530,881	SPILLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ping Lee	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16,17,19-23 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,17,19-23 and 25-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 16, 17, 19-23 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Potard et al (hereafter Potard) ("Using XML Schemas to Create and Encode Interactive 3-D Audio Scenes for Multimedia and Virtual Reality Applications").

Regarding claims 16, 23 and 28, Potard discloses a method and a corresponding apparatus for coding a presentation description of audio signals and, comprising:

generating a parametric description of a non-point sound source (sect. 3.3.1., the original source is "dry"), said parametric description including one or more fields specifying decorrelation information (Table 1), wherein

to one of said fields, a value is assigned which specifies one of several decorrelations (for example, a different position value) to be applied to said non-point sound source, and

linking the parametric description of said non-point sound source with the audio signal of said non-point sound source (see Fig. 6 illustrating an example).

The limitation specified in whereby clause, "whereby in case of the usage of the same audio signal for more than one non-point sound source (for example, in a choir), for each of non-point sound sources (singer in a choir), a different value is assigned to apply different decorrelations to each of the non-point sound sources (sect. 2.3.1, for example, particular directivity or a reflecting/absorbing surface representing the singer's

body)" does not serve to distinguish because this limitation is based on a condition. If the condition is not present, the limitation is moot.

Regarding claims 17 and 23, Potard illustrates in Fig. 5 that separate sound sources are coded as separate audio objects. Fig. 7 is another illustration. Fig. 1 shows the first node defining an object (choir object) and the second node defining the wideness (how many children) and presentation of said non-point sound source by multiple decorrelated point sound sources (by reflective surface and pitch transformation).

Regarding claims 19, 20, 25 and 26, Potard discloses that the size and the defined shape are given by an opening angle having a vertical and a horizontal component (sect. 2.5).

Regarding claims 22 and 29, Potard further illustrates in Figs. 6 and 7 how to decode a presentation description. The steps of evaluating at least of said fields specifying said decorrelation information included in the parametric description of said non-point sound source and the step of selecting, depending on a value assigned to a field in said parametric description, one of the following: one ff several decorrelations to the audio signal of said non-point sound source, the strength of the decorrelation of the selected decorrelation read on Table 1 and sect. 3.1 in which the user is allow to modify the scene. The scene, as understood by Potard's disclosure, is defined by many factors, including and not limiting to the decorrelations to non-point sound source and the strength of the decorrelation.

Regarding claim 21 and 27, Potard discloses that the same audio signal is used for each of several non-point sound sources (such as several singers in a choir singing the same song). A different value is assigned to apply to different decorrelations (position of each singer in choir, pitch transformation, reflective surface) to each of said non-point sound sources. The claimed complex shaped non-point sound source read on one of several examples as discussed under section 2.3.1.

### ***Response to Arguments***

3. Applicant's arguments filed 4/10/08 have been fully considered but they are not persuasive.

On p. 8, applicant argued that Potard does not at all suggest assigning one of several decorrelations. Examiner disagrees. Every parameters listed represent a type of decorrelation. For example, a source with a position value for a source is different from another source with a different position value because the listener can clearly distinguish those two sources are located at different locations. Potard clearly lists several decorrelations that can be modified. When the user defines the elementary source, for example, he/she will assign a value for the position, a value for orientation, a value for directivity, a value for spatial size and shape and so on. Each of these values help the listener to distinguish this elementary source from another source if the another source is being assigned with different values in the parameters as listed in Table 1. Applicant stated that Fig. 1 of Potard does not show any difference in the macro-objects for the different singer objects. This is not true. The text above Fig. 1 clearly discloses

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that the position value is different for each singer objects. One can also reasoned that if every singer objects has the same position value, then the listener will perceive that they all will locate at the same spot, which in reality, is not possible. The invention as disclosed in Potard is to present a scene with as realistic detail as possible. Any realistic choir will not have all single objects located at the same spot. The position value is not the only decorrelations being applied. Pitch transformation is also mentioned, so is the reflecting /absorbing surface. If all these values are the same for every singer objects, then the entire choir is composed of singers with identical singing ability, same body built and wearing the same outfit. As one skilled in the art would have expected, this will not be possible in real world. A choir is formed by singers with different vocal range. A musical conductor will locate the singers with higher pitch at certain location, and the singer with lower pitch at a different location. Furthermore, singer members will face different directions depending on where they located with respect to the entire choir. In general, they will turn slightly toward the middle of the choir. Potard discloses that the end user can modify the fields (the position, the pitch transformation, the reflective surface and so on) in section 2.5.1. The macro object disclosed in Potard is used to eliminate the need to store the information for each child (see section 2.3.2). The users only requires to store information for the macro object and clones this macro object with some modification (read on the claimed decorrelation) to define its children.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ping Lee/  
Primary Examiner, Art Unit 2615

pwl